AMENDMENTS TO THE CLAIMS

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A method of simulating or designing a communication network supporting communication between a plurality of communication units, wherein the method comprises the step of:

employing a simulation tool to resolve a mathematical formula relating to an operation of the communication network; [and] wherein the method is characterized by the step of:

resolving [at least] one or more iterative mathematical formula in hardware within a hardware platform of the simulation tool.

2. (Currently Amended) [The]A method of simulating or designing a communication network according to claim 1, wherein the simulation tool further comprises a software platform, operably coupled to the hardware platform, and utilizes a series of mathematical formula at least one of which has no closed form solution, the method further characterized [comprising]by the step of:

resolving, by the hardware platform, the [at least] one or more mathematical formula that has no closed form solution.

3. (Currently Amended) [The]A method of simulating or designing a communication network according to claim 2, wherein the method is further [comprises]characterized by the step of:

providing, by the software platform, [at least] one or more input signals to the hardware platform, relating to the [at least] one or more mathematical formula to be resolved.

4 (Currently Amended) [The]A method of simulating or designing a communication network according to [or] claim [3]2, wherein the method is further [comprises]characterized by the step of:

configuring the hardware platform, by the software platform, by setting [at least] one or more parameters of the mathematical formula to be resolved, for example, [including at least] one or more [of at least one] path-loss parameters and/or a parameter in the equation:

$$\frac{(E_b / N_0)_{BS\_to\_m}}{C / R_{BS\_to\_m}}$$

5. (Currently Amended) [The]A method of simulating or designing a communication network according to claim [4]3, wherein the [at least] one or more input signals are in the form of an electrically variable signal, for example a voltage level, where a level of the electrically variable signal corresponds to [at least one of] a transmit [and](or receive) power level of a communication unit operating in the communication network.

6. (Currently Amended) [The]A method of simulating or designing a communication network according to claim 5, wherein the mathematical formula relate[s] to an air-interface of a wireless communication network having communication units that are capable of transmitting at differing radio frequency transmit powers, wherein the step of resolving comprises the step of converging a number of the transmit powers.

7. (Currently Amended) [The]A method of simulating or designing a communication network according to claim 1, wherein the method is further [comprises]characterized by the step of:

adapting an operational communication network, for example in substantially in a real-time manner, in response to [at least] one or more output provided by the hardware platform.

8. (Currently Amended) [The]A method of simulating or designing a communication network according to claim [7]3, wherein the method is further [comprises] characterized by the step of:

simulating a variation of a location of communication units as a function of time by adapting [at least] one or more input signal levels.

9. (Currently Amended) [The]A method of simulating or designing a communication network according to claim [8]3, wherein the method is further characterized in that the [at least] one or more input signal levels relate to [at least]any one or more of the following:

(i) A geographical area to be covered by the communication network;

(ii) A number of subscriber units for which a simulation is to be performed;

(iii) An operational status of [at least] one or more subscriber units, for example whether a subscriber unit is mobile or static;

(iv) A power emission level from a subscriber unit and/or base station; or

(v) An operational setting of [at least] one or more base station(s).

10. (Currently Amended) [The]A method of simulating or designing a communication network according to claim 1, wherein the method is applied to [at least one of] a wireless CDMA, TDMA, FDMA or OFDMA communication network.

11. (Currently Amended) [The]A method of simulating or designing a communication network according to claim 1, wherein the method is applied to [at least] one or more of the following:

(i) A static simulation of a wireless communication network;

(ii) A dynamic simulation of a wireless communication network;

(iii) An off-line optimization of a wireless communication network; or

(iv) [At least one of a]An on-line [and a] (or substantially near-real-time) optimization of a wireless communication network.

12. (Currently Amended) [The method of simulating or designing a communication network according to claim 1, and further comprising a]A communication network adapted to support the method steps of claim 1.

13. (Currently Amended) [The method of simulating or designing a communication network according to claim 1, and further comprising a]A communication unit, such as an Operations and Management Centre (OMC) of a 3G communication network, adapted to support the method steps of claim 1.

14. (Currently Amended) [The method of simulating or designing a communication network according to claim 1, and further comprising a]A storage medium storing processor-implementable instructions for controlling a processor to carry out the method steps of claim 1.

15. (Currently Amended) [The method of simulating or designing a communication network according to claim 1, and further comprising a]A simulation tool, adapted to support the method steps of claim 1.

16. (Currently Amended) A simulation tool, for simulating or designing a communication network supporting communication between a plurality of

communication units, comprising a software platform, wherein the simulation tool [comprises]is characterized by:

a hardware platform operably coupled to the software platform such that the hardware platform is configured to resolve [at least] one or more iterative mathematical formula relating to an operation of the communication network.

17. (Currently Amended) [The]A simulation tool according to claim 16[ ], wherein the hardware platform is configured to resolve [at least] one or more mathematical formula that has no closed form solution.

18. (Currently Amended) [The]A simulation tool according to claim [17]16, wherein the simulation tool comprises an interface between the software platform and the hardware platform to enable the software platform to provide [at least] one or more input signals to the hardware platform, relating to the [at least] one or more mathematical formula to be resolved.

19. (Currently Amended) [The]A simulation tool according to claim [18]16, wherein the software platform is capable of configuring the hardware platform by setting [at least] one or more parameters of the mathematical formula to be resolved, for example, one or more path-loss parameters and/or a parameter in equation:

$$\frac{(E_b / N_0)_{BS\_to\_m}}{C / R_{BS\_to\_m}}$$

20. (Currently Amended) [The]A simulation tool according to claim [19]18, wherein the [at least] one or more input signals [is]are in the form of an electrically variable signal, for example a voltage level, where a level of the electrically variable signal corresponds to [at least one of] a transmit [and](or receive) power level of a communication unit operating in the communication network.

21. (Currently Amended) [The]A simulation tool according to claim [20]18, wherein the software platform adapts [at least] one or more input signals in order to simulate a variation of a location of at least one communication unit as a function of time.

22. (Currently Amended) [The]A simulation tool according to claim [21]18, wherein the [at least] one or more input signal levels relate[s] to any [at least]one or more of the following:

(i) A geographical area to be covered by the communication network;

(ii) A number of subscriber units for which the simulation is to be performed;

(iii) An operational status of [at least] one or more of the subscriber units, for example whether a subscriber unit is mobile or static;

(iv) A power emission from [at least one of] a subscriber unit and/or [a] base station; [and]or

(v) An operational setting of [at least] one or more base station(s).

23. (Currently Amended) [The]A simulation tool according to claim [22]16, wherein the hardware platform comprises a plurality of substantially only two electronic components: adder functions and multiplier functions.

24. (Currently Amended) [The]A simulation tool according to claim [23]18, wherein the interface comprises a plurality of sample and hold functions and 'decoder logic' building blocks.

25. (Currently Amended) [The]A simulation tool according to claim [24]16, wherein the hardware platform is configured to resolve an equation of a form:

$$I_m = \sum_{n=1, n \neq s}^{Nbs} P_n \times \frac{1}{L_n} + (P_s - Pm) \times \frac{1}{L_s} \times a$$

26. (Currently Amended) [The]A simulation tool according to claim [24]16, wherein the hardware platform is configured to resolve an equation of a form:

$$I_m = \sum_{n=1, n \neq s}^{N_m} P_m \times \frac{1}{L_n} + (P_s - P_{m\_to\_BS}) \times \frac{1}{L_s}$$

27. (Currently Amended) [The]A simulation tool according to claim [26]16, wherein the simulation tool is located in an Operations and Management Centre of a wireless communication network.

28. (Currently Amended) [The]A simulation tool according to claim [27]16, wherein the simulation tool is arranged to adapt an operational communication network in substantially in a real-time manner in response to an output provided by the hardware platform.

29. (Currently Amended) [The simulation tool according to claim 16, and further comprising a]A cellular communication system adapted to employ the simulation tool of claim 16.

Claims 30 – 32 are cancelled without prejudice.